

ADG-310

Forward Tilt/Manual Door with Heat Fault Indicator Operator's Manual

WARNING: For your safety the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personal injury or death.

— Do not store or use gasoline or other flammable vapor and liquids in the vicinity of this or any other appliance.

— **WHAT DO YOU DO IF YOU SMELL GAS**

- * Do not try to light any appliance.
- * Do not touch any electrical switch; do not use any phone in your building.
- * Clear the room, building or area of all occupants.
- * Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- * If you cannot reach your gas supplier, call the fire department.

— Installation and service must be performed by a qualified installer, service agency or the gas supplier.

AVERTISSEMENT: Assurez-vous de bien suivre les instructions données dans cette notice pour réduire au minimum le risque d'incendie ou d'explosion ou pour éviter tout dommage matériel, toute blessure ou la mort.

— Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

— **QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ:**

- * Ne pas tenter d'allumer d'appareil.
- * Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones se trouvant dans le bâtiment où vous vous trouvez..
- * Évacuez la pièce, le bâtiment ou la zone.
- * Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
- * Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incendies.

— L'installation et l'entretien doivent être assurés par un installateur ou un service d'entretien qualifié ou par le fournisseur de gaz.



For replacement parts, contact the distributor from which the dryer was purchased or

American Dryer Corporation
88 Currant Road

Fall River MA 02720-4781

Telephone: (508) 678-9000 / Fax: (508) 678-9447

e-mail: techsupport@amdry.com

Retain This Manual In A Safe Place For Future Reference

American Dryer Corporation products embody advanced concepts in engineering, design, and safety. If this product is properly maintained, it will provide many years of safe, efficient, and trouble-free operation.

ONLY qualified technicians should service this equipment.

OBSERVE ALL SAFETY PRECAUTIONS displayed on the equipment or specified in the installation/operator's manual included with the dryer.

The following “**FOR YOUR SAFETY**” caution must be posted near the dryer in a prominent location.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

POUR VOTRE SÉCURITÉ

Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

We have tried to make this manual as complete as possible and hope you will find it useful. ADC reserves the right to make changes from time to time, without notice or obligation, in prices, specifications, colors, and material, and to change or discontinue models.

Important

For your convenience, log the following information:

DATE OF PURCHASE _____ MODEL NO. **ADG-310** _____

DISTRIBUTORS NAME _____

Serial Number(s) _____

Replacement parts can be obtained from your distributor or the ADC factory. When ordering replacement parts from the factory, you can FAX your order to ADC at (508) 678-9447 or telephone your orders directly to the ADC Parts Department at (508) 678-9000. Please specify the dryer model number and serial number in addition to the description and part number, so that your order is processed accurately and promptly.

“IMPORTANT NOTE TO PURCHASER”

Information must be obtained from your local gas supplier on the instructions to be followed if the user smells gas. These instructions must be posted in a prominent location near the dryer.

ADG-310

Forward Tilt/Manual Door with Heater Fault Indication

MACHINE OPERATION SUMMARY

This AD-310 incorporates one (1) emergency stop button located on the right front of the machine. This button is “TURN TO RELEASE,” and **must be** in the released mode to power the machine. When the emergency button is released, the Phase 5 micro-computer’s display will light. To turn on the AD-310’s control voltage, press the green “ON” button located on the right front control panel.

NOTE: If a Sprinkler System is incorporated in the machine, the Sprinkler System **must be** powered for the control power to engage. Refer to the AD-310 Sprinkler System Addendum (ADC Part No. 112233) for sprinkler system information.

The ADG-310 has two (2) electronic controllers:

- Phase 5 micro-computer...for material drying.
- Micro-1 PLC (Programmable Logic Controller)...for burner status monitoring, end of cycle light control, forward tilt, and jog functions.

The Phase 5 micro-computer responds to keypad commands only when the AD-310’s doors and lint screen drawer are both closed.

The Micro-1 PLC (Programmable Logic Controller) monitors burner status during a drying cycle, and stops the drying cycle if any fault is detected with the burners. It also controls the “FORWARD TILT” (Rear Up) and “LEVEL” (Rear Down) functions of the AGD-310’s tumbler section, in addition to forward and reverse tumbler manual jog selections.

ADG-310 DETAIL OPERATION INFORMATION

Anytime the airjet signal is asserted the “END OF CYCLE” light (located on the top of the tumbler section) will begin to flash once a second and remain on until the “LOAD DOORS” are opened.

If the ADG-310’s load doors are open during a cycle, the cycle will stop. Likewise, when the load doors are closed again the current drying cycle can be restarted by pressing the “START” button on the Phase 5 keypad.

LOADING or UNLOADING THE MACHINE

Once a drying cycle has been completed, the tumbler can be loaded in the level position or either unloaded in the level position or in the forward tilt position (Rear Up).

LOAD or UNLOAD LEVEL

Open the front doors and load or unload the tumbler.

| **NOTE:** The forward or reverse jog functions **do not work** in the level position.

UNLOAD TILTED

Select [1] on the [0 U N L O A D 1] selector switch located on the right front control door and **fully** open both load doors. The tumbler will tilt forward (Rear Up). Once [1] has been selected on the [0 U N L O A D 1] selector switch, the forward and reverse jog functions will become operational.

To level the machine from a forward tilt position, select [0] on the [0 U N L O A D 1] selector switch. The jog functions will become **non-operational** and the tumbler will tilt towards the rear to the level position.

| **NOTE:** There is a four (4) second dwell (stop) time between a forward and a reverse selection to prevent plug starting the drive motor.

REMEMBER: THE LOAD DOORS MUST BE FULLY OPEN TO CAUSE THE MACHINE TO TILT FORWARD.

HEATER FAULT ROUTINE (Gas Models ONLY)

During a drying cycle the PLC monitors the status of the Phase 5's "Heat On/Off" signal, and the signals of the front and rear burner controllers to their respective gas valve.

Heater Fault Routine

- At the start of every "HEAT ON" signal of the Phase 5 computer, the PLC monitors the time between the "HEAT ON" and "GAS VALVE ON" signals. If the time between these two (2) signals is greater than 15 seconds a "HEATER FAULT" will occur.

Heater Fault Routine (continued)

- After the initial 15 second time difference monitoring routine, the PLC will then continue to monitor the "HEAT ON"/"GAS VALVE STATUS" for any malfunction of either the front or rear burners. If the heat signal is asserted and either or both gas valves are not ignited "HEATER FAULT" will occur.

During a "HEATER FAULT" the following will occur:

- The "END OF CYCLE" light will begin to flash.
- The "HEATER FAULT RESET BUTTON" will begin to flash.
- The fan and tumbler will run a "COOL DOWN CYCLE" for two (2) minutes.

IMPORTANT: A "HEATER FAULT" indicates that there is a problem with one or both burners not igniting properly.

"HEATER FAULT" errors are caused by:

- Exhaust hi-limit switch open.
- Front or rear burner hi-limit switch open.
- Front or rear burner air flow switch open.
- Either no front or rear flame being sensed by their respective flame probes, caused by either no spark, faulty flame probe, faulty Direct Spark Ignition (DSI) module, or bad gas valve.

"HEATER FAULT RESET"

The heater fault reset button's warning light will flash at a rate of once per second. Once the reset button is pressed, the following will occur:

- The "END OF CYCLE" and "HEATER FAULT" lights will stop flashing.
- The Phase 5 keyboard will respond to keystroke inputs, providing the machine lint drawer and load doors are closed.

NOTE: If "HEATER FAULTS" continue to occur, troubleshooting of the heater section will be required. Refer to the system ladder diagram for heater signal information.

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 4 - 03/04/96-10 5 - 04/02/96-25 6 - 05/25/99-10

